JANUARY 1952

FIREMEN

FIFTY-SIXTH YEAR · NATIONAL FIRE PROTECTION ASSOCIATION

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What's *your* decision?

A famous sports *"call"* presented by AHRENS-FOX

The history of sports is crammed with crucial decisions. . . . Decisions — that right or wrong — must be QUICK decisions. For instance — the famous "long count" in the Dempsey-Tunney fight — Sept. 22, 1927 has been argued about for years. In the 7th round Dempsey floored the champ for a count of 5. At that time the referee waved Dempsey to a neutral corner — and started the count over! At 9 — Tunney got up — and the fight ended with a victorious Tunney — a badly-beaten Dempsey. AFTER the fight — the time-keeper quoted the rule as saying "When a contestant is down — his opponent shall retire to the farthest corner and remain there until the count is completed. Should he fail to do so — the referee MAY cease counting . . ." Was the decision right or wrong? What's your decision?

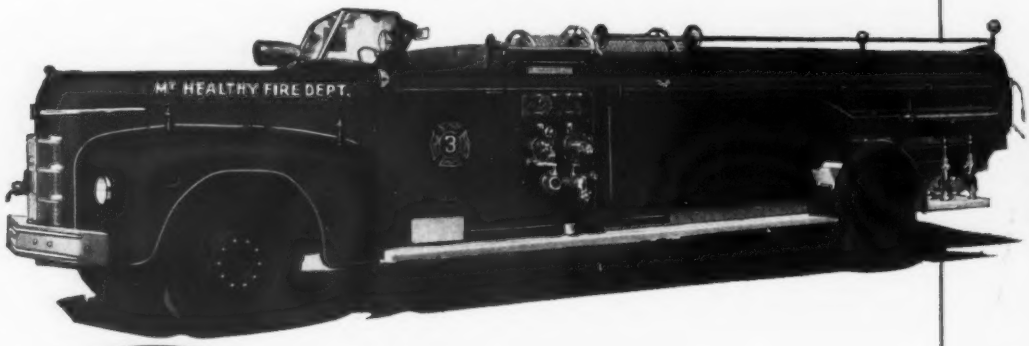
NO NEED FOR SPEED

In sports—decisions *must* be quick. But—in choosing fire-fighting equipment—it's smart to take your time—weigh every point.

Do this—for *your* sake—for your community's sake. Take your time and we know you'll choose AHRENS-FOX equipment, because for years Ahrens-Fox has made the world's finest fire-fighting apparatus.

Ahrens-Fox is soon planning to celebrate their 100th anniversary. Yes—since the invention of the "fire engine"—the name Ahrens-Fox has meant the world's finest. And Ahrens-Fox will continue to supply you with the finest fire-fighting apparatus—far into the future.

So—take your time—study every factor—then you'll *know* why you should choose Ahrens-Fox.



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OIL SLICK FIRES
BEFORE THEY START!

Amazing New "PREV" (Patent Applied For)

Makes Oils Mix with Water Whether on Rivers, Harbors, Lakes, Railroad Yards, Streets; Boats, Airports, Petroleum Tank Farms or any place.

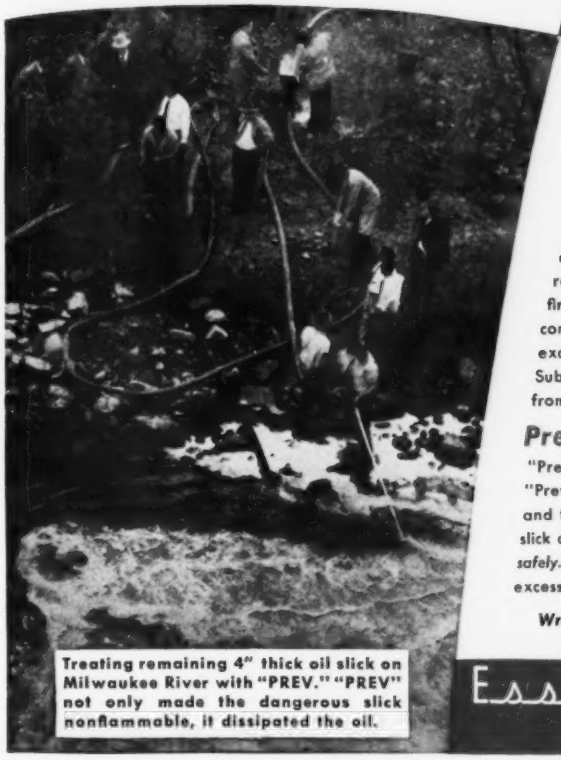
"PREV" can save thousands of dollars of oil slick fire damage in your community — in property loss, injury to firemen and property owners, even loss of life!

"Prev" Makes Oil Slicks NONFLAMMABLE!

In Milwaukee, a damaged fuel oil storage tank dumped over 60,000 gallons of oil into the Milwaukee River and its tributaries, causing an unusual fire hazard. Despite warnings, and before fire prevention experts could dissipate the oil, a flaming piece of paper from a rubbish burner was carried onto the oil slick and 15,000 gallons went up in an inferno of flames — carrying with it $50,000 in damage to river bank property.

An additional 45,000 gallons of oil remained on Milwaukee River, a potential nightmare to residents and public officials.

Milwaukee firemen fighting $50,000 Oil Slick Blaze on Milwaukee's Lincoln Creek. Caused by flaming scrap of paper blown on surface slick.



Treating remaining 4" thick oil slick on Milwaukee River with "PREV." "PREV" not only made the dangerous slick nonflammable, it dissipated the oil.

The Milwaukee Fire Department cooperating with Essential Chemicals Company treated the river with "Prev," a specially balanced petroleum dispersant which quickly renders oil nonflammable. Within hours the prompt action of the fire department had made Milwaukee safe. The oil slick was completely dissipated — and rendered harmless without excessive suds.

Subsequently, "Prev" has been used to eliminate gasoline from railway yards and factory basements.

Prev Makes Oil and Gasoline Mix with Water

"Prev" makes any oil or gasoline water-soluble and nonflammable. "Prev" eliminates oil slick fire hazard! "Prev" gives you the product and the method to control oil slick fires. Makes every oil slick completely harmless. You can flush it down sewage systems *safely*. "Prev" is non-poisonous and performs its functions without any excessive sudsing. Requires no additional equipment.

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DOES YOUR CITY USE THE *Griswold*

FOGNOZL?

VERSATILE! . . . AMAZINGLY EFFICIENT!

FOGNOZL offers you dependable *true* solid straight stream.

Thousands of FOGNOZLS are in use, providing greatest efficiency in fighting many types of stubborn fires:

Paint, Lacquer and Varnish Fires • Gasoline and Fuel Fires Grass and Brush Fires • Oil and Grease Fires • Tank and Vat Fires • Chemical Fires • Lumber Pile and Building Fires.

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Write, wire or phone today for complete information about highly efficient Griswold FOGNOZL.

TRADE FOGNOZL MARK

FOGNOZL APPLICATORS

FOGNOZL Applicators conquer fires in spots impossible to reach effectively with other equipment.

FOGNOZL Extension Applicators give longer "reach" and maximum protection to personnel.

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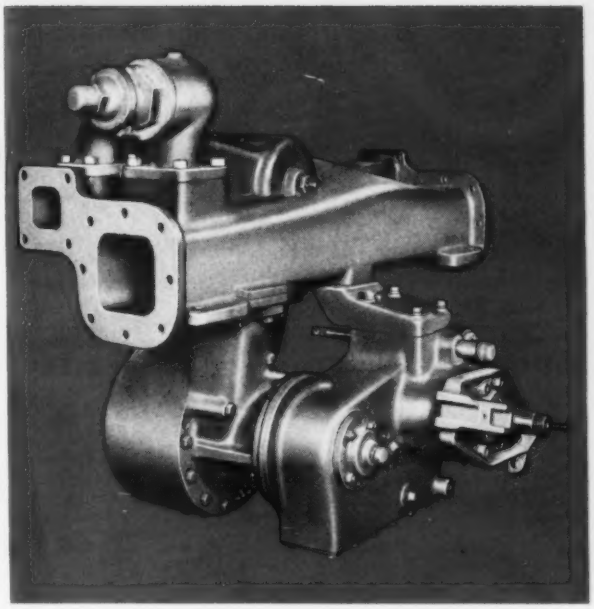
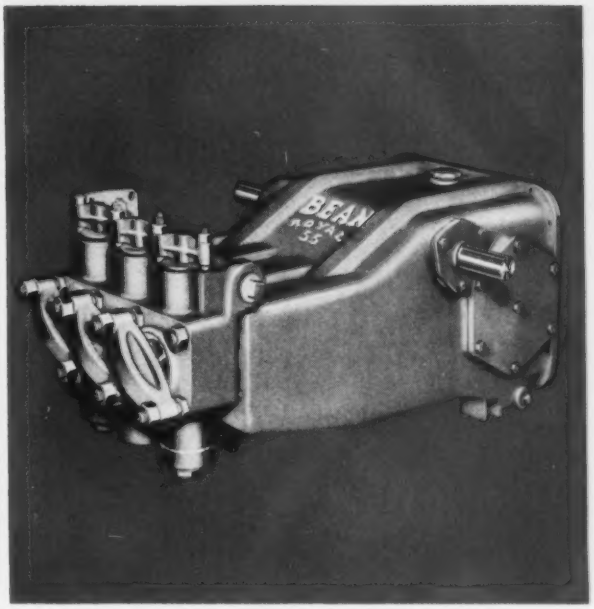


SLUGGING firepower for the John Bean HPV Fire Fighter is supplied by the Bean volume pump. Dependable, long-lived performance is assured by simplified solid-case design, built-in crossover system, four-bearing impeller shaft, oversize bearings, and other advanced engineering features. The Bean volume pump is compact, simple to operate, easy to service.



YOU GET fast-striking high-pressure fog with the famous John Bean ROYAL High-Pressure Pump. Bean fog is TRUE high-pressure fog developed by a positive-displacement, three-cylinder pump. Long life and trouble-free performance result from porcelain-lined cylinders, stainless-steel ball valves and valve seats, and rugged eccentric drive with helical-cut gears.

JOHN BEAN TWO-PUMP fire fighters deliver the one-two knockout punch

Two-Fisted Fire Fighting Demands Full Volume And True High-Pressure Fog TOGETHER. You Get It With John Bean Two-Pump Design.

WHEN FACE-TO-FACE with a tough fire, you appreciate the hitting power of the John Bean two-fisted HPV Fire Fighter. The one-two knockout punch of FULL VOLUME and TRUE HIGH-PRESSURE FOG is at your instant command because of John Bean two-pump design.

Two lines of fast-striking high-pressure fog are supplied by the rugged John Bean High-Pressure Pump operating from its own independent water supply. Three lines of slugging firepower from the dependable Bean volume pump can be put into service AT THE SAME TIME. By combining volume and true high-pressure fog, you get ALL THE FIRE-POWER from a John Bean HPV Fire Fighter when you need it most.

Get the facts about John Bean Two-Fisted Fire Protection. Write today!

HERE IS firepower! *Two-fisted* firepower! The John Bean HPV Fire Fighter is supplying 60 gallons a minute for two high-pressure fog lines at 850 lbs. pump pressure and, AT THE SAME TIME, three 2½-inch volume lines deliver 750 gallons a minute at 150 lbs. pump pressure. Two-fisted firepower from two-pump design.

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Can be mounted on most standard truck chassis

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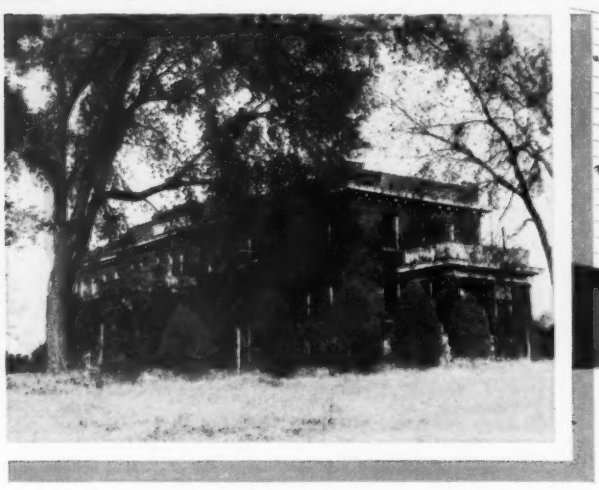
BUILDERS OF BEAN HIGH-PRESSURE PUMPS FOR OVER 60 YEARS



"The only way you could enter the building was with one of these Self-Contained Masks"

Said George M. Allen—Fire Chief, Legionnaire Fire Department, Harrisonville, Missouri

Heavy smoke was pouring from the basement and first floor doors and windows of the Cass County Home for the Aged when Fire Chief Allen and his crew of 25 volunteers reached the scene—just 3½ minutes after they had received the alarm.

"Nine people were still in the building," Allen stated in his report to the National Fire Protection Association. "We had two Chemox Masks. The only way you could enter the building was with these Self-Contained Masks."

Putting both masks to immediate use, firemen entered the smoke-filled building. Minutes later, four old women and one old man had been rescued from the first floor.

With personnel evacuated, all hands turned to the task of putting out the fire. Here again, M.S.A. Chemox Masks played a vital part. Safe-guarded by this dependable breathing equipment, firemen were able to maintain close-range concentration of "fog" and water. By 6:00 a.m., one and a half hours after the alert, the fire was out.

In the closing paragraph of his modest report, Chief Allen said "I don't know how we would have made out without our two masks. But one lesson we learned was that two masks are not enough."

You're better prepared with an

M.S.A. CHEMOX

The Chemox Mask can be donned in a matter of seconds to permit immediate entry and work in unbreathable or oxygen-deficient atmospheres with complete respiratory safety, because Chemox makes its own pure oxygen as the wearer breathes, from an economically replaceable canister. Non-fogging lenses—no high pressure cylinder lines, or fittings. U. S. Bureau of Mines approved for 45 minutes minimum service per canister. Write for bulletin No. B-14

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SAFETY EQUIPMENT HEADQUARTERS

Call the M•S•A man on your every safety problem . . . his job is to help you.

Firemen

Volume 19 — Number 1

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HENRY S. GERE — ADVERTISING MANAGER

Published monthly for the fire service members of the
NATIONAL FIRE PROTECTION ASSOCIATION

A VOLUNTARY NON-PROFIT ORGANIZATION
60 BATTERYMARCH ST., BOSTON 10, MASS.

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Cover Picture

Most effective aircraft fire fighting apparatus requires high capacity turret discharge rates. This month's cover shows the turret guns operating on the new crash truck of the Washington National Airport. These turrets can discharge 200 gpm each with a range of approximately 150 feet for straight stream and 65 to 70 feet for fog-foam. In addition the truck has a ground sweep nozzle and 3 hand lines with combination nozzles. Pumps are driven by two Chrysler engines and can deliver 600 gpm each at 350 pounds. If one pump stops for some cause, the other will continue to deliver 600 gpm at 150 pounds.

The truck has a 1200-gallon tank and carries 130 gallons of foam. It has a Walter chassis. Fire protection equipment was assembled by Maxim Motor Company of Middleboro, Massachusetts.

Fire Department Criticized for Handling of the Dead

Chief Waldo Merrill of Council Bluffs, Iowa, writes that his department has been embarrassed by bad newspaper publicity regarding the handling of the bodies of deceased persons brought to hospitals by fire department emergency squads and pronounced "dead on arrival" by hospital interns or physicians.

Where the next of kin could be contacted the bodies were then taken by the emergency squad to a mortuary selected by that person. This was considered to be an act of courtesy on the part of the fire department. Where no next of kin was known the body was taken to the coroners for disposition as required by law.

Newspaper stories implied that the fire department was "selling" the bodies. Upon learning that the coroner had been granting small gratuities to the firemen for their favor of delivering the bodies to the mortuary, eliminating the expense of an ambulance and crew to move the bodies from the hospital, Chief Merrill ordered that no gratuities could be accepted by the firemen for such service. Arrangements have now been made for hospitals to admit all patients brought by emergency crews even though dead, leaving the disposition of the bodies to the hospitals.

Thus the newspapers' sensational charge against the firemen has served to prevent them from rendering a courtesy to the family of the deceased and two city vehicles now will be required to handle each body. One, the fire department's, will bring the victim to the hospital to be pronounced dead. Then the mortuary must pick up the body at the hospital with a separate crew.

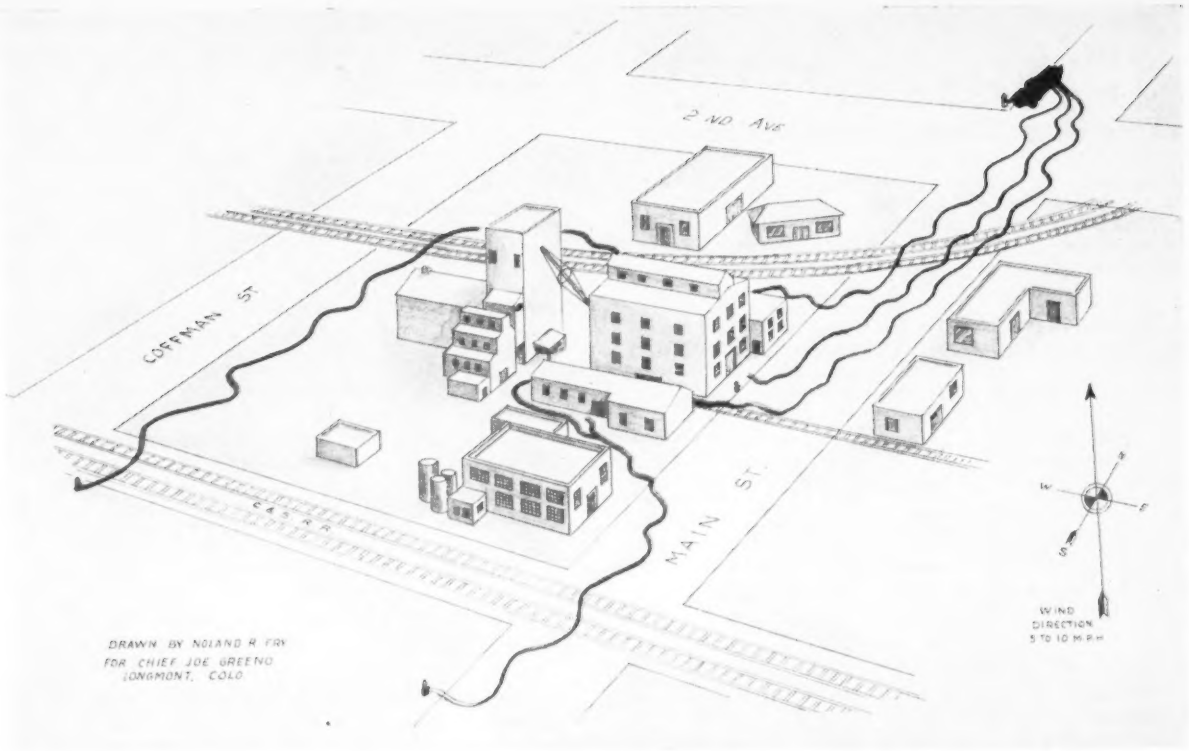
This situation brings up another point that may be of vital importance to any fire department or rescue squad. Only a physician can pronounce a person dead and sign a death certificate. The fire department must assume the patient to be alive no matter how obvious it may appear to the firemen that the person is deceased.

Uninformed Fire Fighting

At a recent factory fire, members of a fire department immediately attached a hose to a yard hydrant on the property and began fighting the fire. It happened that the water supply for the sprinkler system of the involved building, and the supply for the yard hydrants, both came from a single gravity tank on the property. Before the fire fighters could be warned, the supply and pressure available for the sprinkler system was seriously reduced and the fire gained considerable headway. Fortunately the situation was corrected and the fire fighters, aided by fire doors, made a good stop.

Most fire departments have standard procedures for supporting sprinkler systems at a fire. In this instance, the chief of the department had died shortly before the fire. He had been aware of the conditions at this particular building and no doubt would have pumped from a city hydrant into the yard mains. However, the fire fighters on duty were uninformed regarding the proper procedure and used the nearest hydrant which happened to deprive the sprinklers of water.

Pre-fire planning is valuable to fire fighting. To be most effective, the information gathered must be disseminated to all members of the department so that it will be used even if senior officers are not present.



Mill Fire in Longmont, Colorado

THE detailed sketch above was submitted with a report to the NFPA Fire Record Department by Chief Joseph W. Greeno of the Longmont, Colorado, Fire Department. The reported fire involved a building on the property of the Intermountain Elevator Company in Longmont on October 21, with damage estimated at $195,000.

The building was the 3-story brick, wood-joisted, feed grinding mill shown in the center of the sketch. Fire originating in the first story was discovered by a passerby. He notified the police department who in turn telephoned to the Longmont Fire Department. It was estimated that the fire had a 15-minute start before the Fire Department was notified at 7:42 P.M.

Lack of automatic sprinklers, detection equipment, or watchman service, and many unprotected vertical openings contributed to a well-involved building by the time that the first apparatus responded. This was a 500 gpm pumper manned by two paid fire fighters.

A single 2½-in. line was laid from the hydrant (on a 4-in. main) at lower center and two 1½-in. lines were wyed from this for the initial attack. In a short time a 750 gpm pumper also responded, was connected to the hydrant on an 8-in. main at 2nd Avenue and Main Street, and three 2½-in. lines were laid as shown above. This necessitated shutting down of the previously-laid line. The gravity line on Coffman Street operated from a 6-in. main to protect exposures.

Chief Greeno reports a valuable lesson from this fire. With both of his pumpers committed and with mutual aid assistance on the way from the Lafayette and Boulder Fire Departments, responding from distances of 10 and 18 miles respectively, another alarm was received. Fortunately this proved false, but Chief Greeno had to release apparatus and men to respond. He stated in his report that the value of reserve apparatus and men was extremely apparent in this situation.

Longmont fire fighters were limited in numbers and apparatus but they overcame some difficult exposure problems in this fire. Although the involved feed mill and adjacent office shown here were destroyed, damage to the elevator and to other nearby buildings was confined to relatively low loss.

Two 1-in. and one 1½-in. lines with adjustable fog nozzles operated by hosemen of booster company No. 11 of San Francisco.

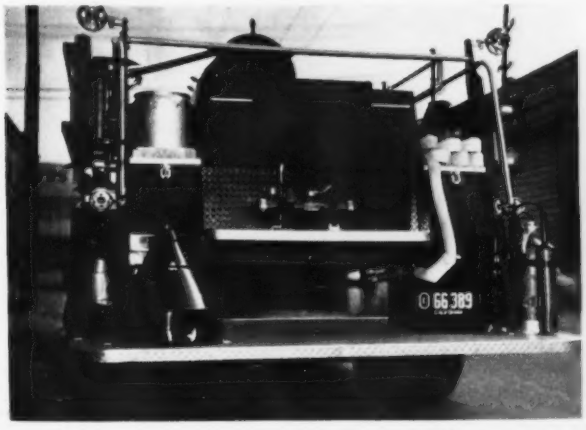
San Francisco's Booster Tank Wagons

TO provide prompt small stream service while engine companies are laying out and connecting to hydrants, the San Francisco Fire Department operates 15 booster tank wagon companies. The latest type of booster wagon is illustrated on this page in photographs furnished through the courtesy of Chief of Department Edward P. Walsh of San Francisco. These companies are an outgrowth of the old chemical engine companies once common in many cities before the advent of the triple combination pumper replaced the separate small line service in most fire departments.

In the San Francisco Fire Department the chemical company developed into the booster company. These companies are now provided with a 500-gallon water tank, two reels of 1-in. hose with combination fog nozzles and the more recent trucks have pre-connected 1½-in. lines with similar nozzles. The latest type of booster wagon is a Seagrave Corp. truck with a 600 gpm pump locked into series operation to give 300 gpm at 300 lbs. pressure.

Booster companies are distributed over the entire city along with the 47 engine companies (some of which have separate hose wagons), 18 ladder truck companies, and numerous special units such as fireboats, water towers, rescue companies and salvage companies. The engine companies also carry some 1½-in. hose with fog nozzles. At least two men are on duty with each booster wagon. These wagons are housed in the stations of 10 engine and 5 ladder companies.

Rear end of booster wagon showing water tank, pre-connected 1½-in. line with fog nozzle, foam generator with hopper and foam supply.

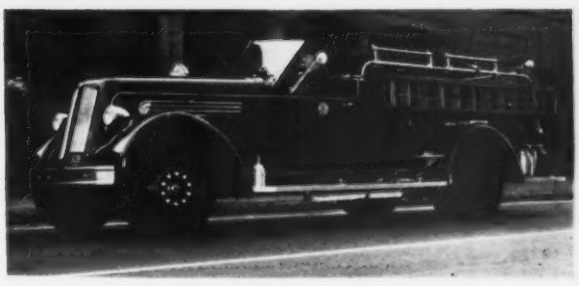


One of the booster wagons responds to all first alarms and to many "still alarms." In addition to 500 ft. of 1-in. hose and 150 ft. of 1½-in. hose, they are also equipped with foam and CO_2 extinguishers. Most built-up areas of the city are within a mile of one or more booster wagons. The total amount of water carried in the tanks of these units is about the same as if each pumper company had a 150-gallon tank but the small line service has been concentrated in 15 vehicles freeing the engine companies for work with larger streams.

Chief Walsh reports "They control most of our small fires and are also very valuable for chasing sparks at the big fires."

Operator's panel showing 2½-in. inlet and outlet connections, tank fill gage, and pressure governor.

Side view of Seagrave booster wagon showing dual reels of 1-in. hose, roof and extension ladders, and Indian fire pump extinguisher.



Large Caliber Fog Guns Beat Memphis Blaze

CHIEF John C. Klinck of the Memphis, Tennessee, Fire Department, reports enthusiastically on results obtained with large fog guns at a 3-alarm fire that involved a retread plant of the Firestone Tire and Rubber Company on October 23, 1951.

Employees had fought a fire in a buffing room with extinguishers but had failed to sound an alarm. When firemen were called by a passerby at 2:30 A.M. flames had involved the block-long structure and threatened adjacent buildings. Pictures below show a sequence of fire-fighting operations.

As second alarm companies arrived, large fog gun on salvage truck begins to cover flames shown sweeping the roof. Within 15 minutes this part of the fire was blacked out.

As third alarm companies get into service a stream from a water tower supplements the large fog gun fed by three lines.

Later during the fire the fog gun was used to control flare-up of flammable liquids, including rubber cement.

Two fog guns giving mobile support to engine company crews advancing for mop-up.

Combined Police and Fire Departments

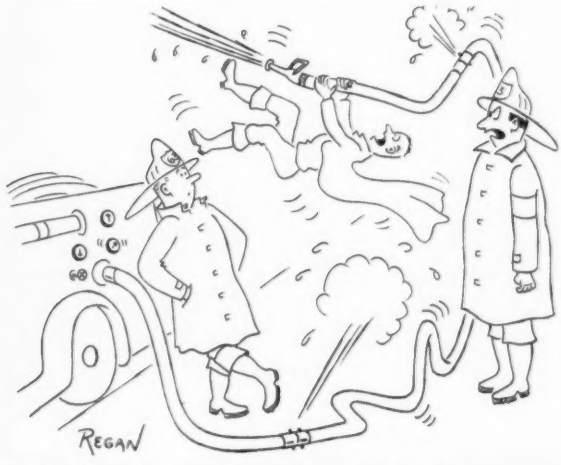
OHIO Attorney General C. William O'Neill has ruled that a single combined police and fire department is illegal in the Buckeye State. The ruling was made at the request of the State Bureau of Inspection and Supervision following a routine examination of the City of Oakwood, Ohio, which has maintained a combined police-fire department for more than twenty years, since the elimination of a volunteer fire department.

The Attorney General's opinion, while conceding that a combined police and fire department might be economical, stated that constitutional and statutory sanction is lacking for combining police and fire departments in any Ohio city regardless of its system of government.

The Ohio Supreme court has repeatedly held that police and fire departments are governed by state laws and that municipalities lack authority to disregard them. The opinion pointed out that state Civil Service law and laws pertaining to firemen's pension systems treat each as separate entities.

In declaring that there was no legal basis and no guiding precedent for the establishment of such a combined police and fire department the Attorney General's opinion was as follows:

1. A municipal corporation under the Constitution and laws of Ohio does not have the authority to merge the police and fire departments into a common unit performing the duties of both.
2. Since Section 486–10d, General Code, provides for separate civil service requirements for police and fire department applicants and forbids the interchanging of eligible lists and transfer of personnel from one department to the other, a municipality is without authority to provide for a department the members of which perform the duties of both departments.
3. Where a municipality fails to set up a police department and a fire department as such, the laws providing for pensions for members of police departments and fire departments do not apply to members of an unauthorized department performing the duties of both.
4. Where a municipality fails to set up a police department and a fire department as such, the laws providing for the levying and distribution of taxes for support of pension funds for members of those respective departments are inoperative.



"Hartnig! There are certain responsibilities that go along with pump operation!"

The Fire Services in Civil Defense

Official Recommendations Are Given in Administrative Guide Issued by U. S. Federal Civil Defense Staff.

THE official recommendations for the fire services are contained in an administrative guide entitled "Fire Services" just issued by the U. S. Federal Civil Defense Administration. These are contained in a pamphlet 6 by 9 inches, 34 pages, available for 15 cents each, from the U. S. Superintendent of Documents, Washington 25, D. C.

The appearance of this official document will undoubtedly stimulate attention by state and local authorities to the problem of organizing the facilities of public fire departments in wartime. It makes the specific recommendation that the states, which have not done so, establish a Fire Services Division headed by a State Fire Coordinator. It calls attention to the existing facilities for firemen's training, particularly the long-established statewide firemen's training programs, and urges that auxiliary firemen be trained in conformance with the techniques and policies of these established firemen's training setups. It points out that the civil defense communications program contemplates the use by the Fire Services of their own communication services. It recommends that the local Fire Services survey and chart auxiliary water supplies for fighting. The pamphlet also contains a valuable bibliography of source material on fire matters and a bibliography of motion pictures which would be useful in stimulating interest and in training.

THE value of the document is offset somewhat by the limitations imposed by the overall scheme of civil defense which is being advocated by the Federal Civil Defense Administration. It is appropriate to point out here one or two of the important limitations of the administration proposed for fire services.

1. The document follows the FCDA official line that a completely new civil defense organization is to be set up. The fire services are crammed into this pattern without full realization of the fact that they do not need to be part of a civil defense organization. They should, of course, maintain close liaison with civil defense operations at all points. The authors of the pamphlet have put in a good section on the operation of fire departments in metropolitan areas which explains the problem but without presenting an effective solution.

2. It recognizes the present civil defense thinking that unpaid auxiliaries will be used to augment the present forces of professional and regular paid-on-call or regular volunteer firemen. Not only at FCDA but elsewhere, one point has escaped most people. That is that firemen for dealing with air raid fires must, to be effective, be the same kind of firemen who are provided in peacetime. The fire problems of war are obviously going to be more complicated and require greater skills and resourcefulness from firemen than the fire problems of peace. Enough attention has not been given to the British experience in setting up an auxiliary fire force of "sub-professional" firemen. Before the British got through the last war all of their firemen were integrated into the fire services. Whether they were full-time or part-time firemen was not of importance. The real lesson was that all firemen enjoyed a completely regular status. Those who expected to be on duty on a "full-time" basis were paid. Those on a part-time basis were paid in proportion to the time worked.

It should be recognized that the auxiliary, emergency or reserve firemen referred to in the FCDA guide could be at present taken into most fire departments which have facilities for recruiting volunteers or part-paid men, but that they could be brought into departments which are now staffed by fully-paid professional firemen only by a change in the regulations of the professional fire department.

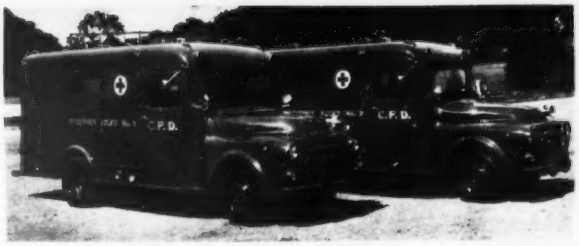
3. A third limitation of the guide is incident to the notion that a civil defense organization can come into being and be ready to go to work on a warning signal. This is the most dangerous fallacy of our present civil defense plans. A good many fire departments have plans to put fire companies in new locations when a warning is received. The administrative guide makes the valuable suggestion that the relocation of fire equipment on warning should place fire companies at selected points about an equal distance apart, avoiding concentrations which would be subject to destruction in a single attack. This flags the reader so that he realizes there is a problem but it does not spell out the logical answer.

THE logical answer would run counter to present official thinking on the overall problem of civil defense. In fairness to the civil defense authorities it should be pointed out that public understanding of the problem in part prevents the facts being spelled out in these administrative guides. The notion that a civil defense organization with a new and untried pattern can go into service upon warning and be effective is open to question. For example, fire departments which are operating with their regular officers and equipment and in territories familiar to them would have enough difficulty in wartime fire situations.

The idea is a bit unrealistic that fire companies can be expected to operate effectively from an unfamiliar location with an unfamiliar pattern of command and communications. In setting up the fire services for civil defense operation, needed changes in organization or company distribution should be put into effect in peacetime. The department as reorganized and relocated would then have a chance to get used to changes in operation. Such a period of shakedown is essential if the fire companies and firemen are going to be able to function effectively in civil defense.

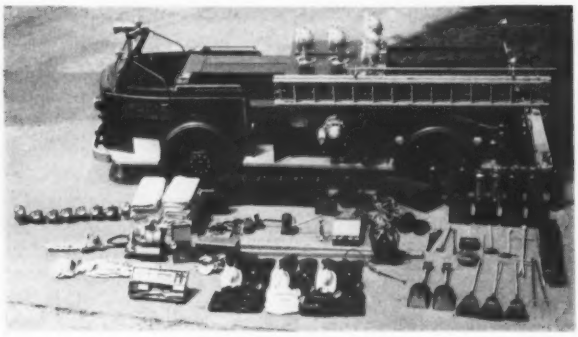
Rescue and Squad Trucks

AT one time rescue and squad trucks were found chiefly in the fire departments of the larger cities. Today fire departments of all sizes are using an increasing number of rescue trucks to carry special emergency equipment that cannot be placed on every pumper and ladder truck. Rescue squad crews provide additional trained manpower to better utilize available fire-fighting equipment. Rescue and emergency units have helped to build public confidence and goodwill for the fire service. Here are some of the latest rescue and squad trucks by various manufacturers.



The Gerstenslager Company, Worcester, Ohio

Emergency squad trucks Nos. 1 and 2 of the Columbus, Ohio, Fire Department built on Dodge truck chassis by this concern specializing in custom built emergency vehicles.



American-LaFrance-Foamite Corp., Elmira, New York

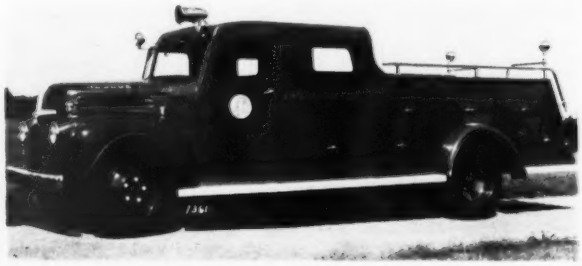
Rescue squad truck delivered to York, Pa., on 150-in. wheelbase cab-ahead-of-engine truck with 25-ft. turning radius and 204 HP V-12 engine. Some 258 items of special equipment include 40 Shur-dry salvage covers, 7 MSA masks and breathing apparatus, 2500 Watt 110 volt DC or 230 Volt AC generator, 20-in. electric chain saw, 10-in. portable electric saw, 5- and 30-ton hydraulic jacks, and portable pump.

Mack Manufacturing Corporation, Long Island City, New York

This Type 85LS rescue car has 5-speed transmission, numerous appliance compartments, heaters and defrosters, a 100 gpm booster pump and 100-gallon tank just in case the truck should chance upon a fire.

The Boardman Company, Oklahoma City, Oklahoma

No. 1 squad truck delivered to Oklahoma City on a Ford F-5 chassis, showing side compartments for emergency equipment and divided body permitting use as additional hose carrier.



Maxim Motor Company, Middlebore, Massachusetts

Maxim Model XR rescue truck on Ford F-5 chassis delivered to Pascoag, Rhode Island. Seats 3 men in front and 4 under canopy. Has compartments for stretchers, generator, inhalator and other rescue equipment.

Brumbaugh Body Co., Altoona, Pennsylvania

Squad truck of the Turtle Creek Fire Department on an F-7 Ford has a large seating capacity with a top that telescopes forward to provide an open rear end in good weather. Generous compartments for special equipment are provided in the body that extends over the side fenders.

Sharpsville Steel Fabricators, Inc., Sharpsville, Pennsylvania

The Fredonia squad car on a Dodge cab-over-engine chassis with removable foam rubber seats and backs. Seats 21 men. Body has double doors at rear, roof ventilators and screens. A 400 gallon tank, located over the 200 gpm rotary pump, extends part way back under the seats which also have compartments for emergency equipment. A booster reel is under the rear step.

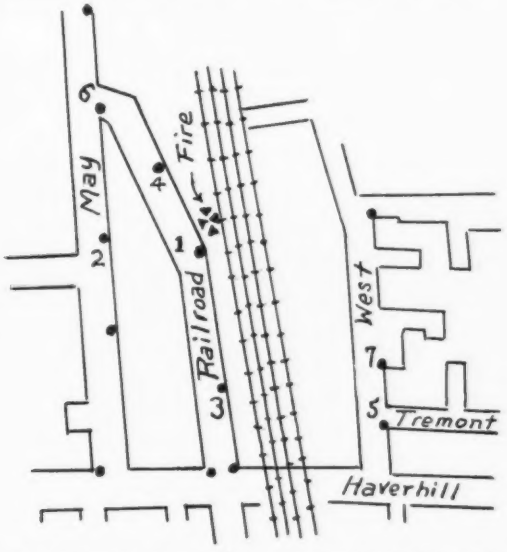
No Water for Fire Fighting!

From a report submitted to the NFPA Fire Record Department by Chief Edward A. Retelle of the Lawrence, Massachusetts

THE captain of the first engine company reaching this Lawrence, Massachusetts, factory fire on November 6, ordered "3 lines to the gun" to protect exposed dwellings already igniting. When the hydrant was turned on there was no water. The pump moved to a hydrant in the next block and still no water was obtained. Lines had to be run from hydrants 1000 ft. away. Early collapse of sprinkler piping in the burning 4-story frame building, processing sawdust and shavings for the fur and polishing industries, had depleted pressure in the 6-in. public main supplying hydrants near the plant.

A deputy chief of the Lawrence Fire Department responded on the first alarm with 4 engine companies, 2 aerial ladder companies, and a rescue company. He sounded a general alarm immediately, calling 5 additional engine companies, a ladder company, and off-shift firemen.

The Chief of the Department arrived and ordered in two of three out-of-town engines, responding on mutual aid from Methuen and Andover, and also called for two engines apiece from the Haverhill and Lowell Fire Departments, both ten miles distant from Lawrence.



The first arriving engine, a 1000 gpm pumper hooked up to the hydrant directly in front of the involved building (1) set up a deluge gun, but could get no water. The pumper was moved to May Street (2) found no water there and moved to a hydrant about 1000 ft. from the fire. The second arriving engine, a 1000 gpm pumper, stretched two 500 ft. lines from the hydrant south on Railroad Street (3) to protect exposures but no water was available at this point. The same condition existed at hydrant (4) so this pumper moved to a position on West and Tremont Streets (5) about 1000 feet from the fire. The third engine, a 750 gpm pumper stretched two lines from the hydrant at (6) and at first had low pressure, but pressure improved when the gate leading to plant sprinklers was shut down. The fourth engine, a 750 gpm pumper, stretched a line from the hydrant abandoned by the second engine (3) and pumped with success after the sprinkler gate was closed. Engines arriving on general alarm covered the rear of the building with lines across the railroad tracks, pressures being supplied by pumpers. The Haverhill pumper connected to the hydrant at (2) water supply having been reestablished. This pumper supplied the Methuen pumper which operated directly across the street from the fire building. A pumper from Andover operated from a hydrant (7) through a 1000 ft. line. Both Lowell units covered-in at the Lawrence Central Fire Station.

Here is a view of the difficult exposure conditions encountered by the responding departments. The destroyed buildings will not be rebuilt on these sites because of present zoning restrictions. Fire fighters made excellent stops with a water supply that initially was limited. Fourteen firemen suffered slight injuries from collapsing walls. Building loss was estimated at approximately $90,000.

AN employee in the basement discovered the fire on the wall behind bucket conveyors. An alarm was transmitted immediately but open stair shafts and the highly combustible materials led to a complete involvement before apparatus could arrive.

Not only was water scarce but a difficult exposure problem existed as shown in the picture at upper right. Fire fighters made an excellent stop in limiting exposure loss to the destruction of an adjacent 2-story, 4-family dwelling and damage of a 3-story dwelling and two other dwellings, all of which were close to the involved building.

Fire is presumed to have started when a friction spark of a metallic substance ignited sawdust that was carried by a conveyor to the top of the building, where screening of sawdust and shavings was done. The warehouse was approximately 100 feet high and terraced. It was of light wooden-joist construction with wood siding.

The sketch on this page helps to explain some of the difficulties that hindered fire fighting. When fire started in the building the 350 heads of the dry sprinkler system operated. This system had been installed in 1926. It was supplied by a 6-in. feeder from the 6-in. street main.

The large demand of the sprinklers overtaxed this supply. The sprinkler riser and piping were attached to weak interior construction that allowed the piping to collapse, breaking the riser at a point just above the dry valve. This break was responsible for the lack of water from nearby hydrants when fire companies arrived.

The water main on Railroad Street (see sketch) is 6 inches in diameter with one hydrant located directly in front of the involved building at the yard entrance. Two other hydrants are on the street, one 250 feet to the north, the other 500 feet to the south. The nearest hydrants for use on the rear of the building were 700 to 1000 feet distant across the railroad tracks and a field. These also were fed by 6-in. mains.

Chief Retelle points out that it is probable that the operation of the dry pipe sprinklers was too slow for the high hazard involved and that the sprinkler system needed a secondary water supply to supplement the 6-in. public main.

SUGGESTIONS FOR GOOD STRETCHES

A perfect stretch is a "joy to behold" — but often they're not. Here's how to iron out the kinks.

By JOHN P. MULLEN, Captain, Engine 3, Fire Department, New York City

Reprinted courtesy WNYF, official publication of the Fire Department, City of New York

THERE has been many a chapter, outline, and report written on the proper methods of stretching hose lines. Instructions have varied with the kind of fire, type of building, whether it is a one or two piece engine company, whether the fire or hydrant is encountered first and whether or not it is located in the high pressure areas. Our rules and "Official Action Guide" tell us explicitly what to do in specific instances. The Company School evolutions tell us the size and length of hose, the size and type nozzle, the recommended connections and appliances that are most effective in fire-fighting operations for the particular fire being considered.

Learn by Experience

However, this article will attempt to point out a few of the pitfalls to be avoided when operating with engine companies. Teamwork among the members of a company, among engine companies, and between engine and truck companies, is essential. Teamwork implies a knowledge of the other fellow's plans and actions. Therefore, to be efficient an engine officer has to make a sizeup in order to decide the length of the stretch and the manner of stretching to the fire.

Let us first consider a problem that concerns all fire apparatus in the modern traffic-congested metropolis. This ever-increasing traffic situation warrants a review of some of the common errors or omissions that we encounter in the proper placing of apparatus at fires and in the subsequent stretching of hose lines. Before the location of a fire is ascertained, first due engine companies might at times pull into a street and tentatively take a hydrant. But, if the fire is in a direction other than that which the company is facing, the apparatus must be backed out into the stream of traffic, with delay, and with an increased chance of being involved in an accident. All this would be obviated by keeping apparatus at a point at the near side of the intersection so as to be ready to move in any direction.

Second due and later arriving companies should not jam up an intersection and crowd the immediate fire area. They might even keep out of the fire block unless need for their apparatus is indicated. Apparatus should be parked out of the path of traffic, where it can be moved in quickly if required. Ladder companies can assist operations by keeping clear of the front of the fire building. A truck usually should not be driven past the building on fire, but should be parked in a position where it may be readily advanced to the front of the building if conditions warrant the use of the aerial ladder. In all cases, the truck chauffeur should guard against stopping the wheels of his apparatus on hose lines snaked into the fire building.

Additional engine companies rolling in, when ordered to assist on a line, should work as a unit. The important thing is that the officer keep men near so that when specific orders are given, they will not have to be "rounded up." Assistance to the first line should be directed toward street operations, straightening out and lightening up on lines and helping the motor and pump operator to hook up and supply the proper siamese connections.

EFFICIENCY is greatly hampered when a company becomes entangled in a pile of hose at the rear of a pumper or hose wagon. It does not happen often, but it should never occur and it can always be averted if the men drop the hose at a distance back from the apparatus and in separate, distinct piles. The entanglement is most apt to occur in a flying stretch, wherein it is necessary to dig deep into the hose partition to get the necessary butt to which the nozzle is to be attached. There is absolutely no excuse for it where fire conditions permit a back stretch with the top length of hose going to the fire. In this latter case, the nozzle man pulls his share right to the doorway of the fire building. There are two situations that may occur that will result in stretching short in the backstretch. First, the chauffeur may get his signals crossed and pull the pumper away before enough hose is off. Secondly, as the pumper pulls away, a hose butt catches and drags the pulled-off hose away from the fire building. The latter instance only requires one of the men stepping on the hose or bending it around a fixed object before the pumper starts to pull away. In any event, the chauffeur should not race the apparatus at excessive speed.

Sizing Up

Too much emphasis cannot be placed on the need for a correct sizeup of the proper stretch. Failure to do so by an engine officer invariably leads to confusion. At the outset, the officer acting on his survey must order the stretch, indicating the hydrant, number of lengths and the location to which line is to be taken. Of course, it is agreed that most stretches are routine, requiring little or no supervision over the actions of trained enginemen who automatically know the required stretch at the majority of fires. At the same time, neither is it true that all an officer is required to do as he jumps off the apparatus is give the command "Stretch." At a fire situation requiring specific orders, such a command leads to confusion.

Stretching short is the nightmare of every engine officer. Usually it is caused by improperly sizing up the interior layout of the fire building, or mistaking the location of the fire. In all cases it becomes the officer's responsibility to designate the number of lengths of hose. In the case where the structural layout involves a stairway encircling an elevator shaft, the utmost teamwork is necessary to prevent a short stretch or delayed water. An officer, in the event of such a stretch, must

always make certain that sufficient hose will be laid. He should order other incoming companies to get on the line and carry, not drag, the hose butts up and around the stairway encircling the shaft.

Stretch Enough Hose

In all cases enough hose must be provided not only for the fire floor but for the advance of lines. Hose sufficient to move in must be provided at the point of operations before starting water. Surplus hose should be taken into adjoining apartments or lofts, or stretched along stairs just above, to assure rapid advance of the line when water is started and a door opened to the fire area.

There is never any good reason to neglect two of an engineman's best friends where additional lines are ordered into action. First, there is the fire escape hook. Incidentally, Fire College instructions are that such hooks are to be used when the fire is on the fourth floor or above. Any fire escape stretch that neglects to employ the necessary seconds to set up this evolution, usually ends in confusion and minutes of delay.

Second is the roof rope. When ordered to the roof of a building adjacent to the fire building, too often the line is stretched through the inside of the building. Why is the roof rope not employed? Is it because it apparently takes time to dispatch men to the roof with a roof rope and hose roller? Such a premise is incorrect.

The fastest, safest, cleanest stretch is via roof rope on the outside of the building. There are no tricky, winding stairs or halls to impede or delay the stretch. There are no possibilities of increased pressure bursting hose and flooding a building not even involved in the fire. (*Where a separate hook is not carried, some departments provide a shepherd's hook on the opposite end of the handle of a plaster hook. Others use a rope hose tool with a large hook.* — Ed.)

NO discussion on hose lines would be complete were we to omit the importance of hose straps and spanners, and the occasional neglect of their use. Lack of these tools where needed can bungle any stretch. A fire escape stretch is impossible without the all important hosestrap. A well hole stretch needs hose strap support at alternate floors in order to prevent possible injuries. The spanners, while of infrequent use, are essential when the need for them arises. Many enginemen equip themselves with the handy, lightweight type that folds back on itself and takes but little room in their pockets.

WE have now worked our way up to the nozzle and are ready to review some *faux pas* that may be encountered at this position. Too often the nozzle man loses time by attaching the nozzle to the hose at the apparatus. This tends to slow up the whole stretch. There is time to attach the nozzle as he is walking with the hose. When water is on its way the nozzlemen should crack nozzle and point it toward the ground. Don't wait for air to become highly compressed, and furthermore don't aim the released air at the fire as the additional oxygen only intensifies the fire.

An officer should not place too great a reliance upon his order to "Start water" being relayed back by men on the line. In addition, to the relaying back of this order there should be assurance that the above order will be speedily complied with by designating a member to contact the motor and pump operator via window, or by return to the street.

(*It is the officer's responsibility to send back a specific command or instruction such as "Water on 1st line; engine 23; 3rd floor rear; 1⅛-in. tip; about 400 ft. line." This lets the operator estimate the correct pressure needed for elevation, length of line and nozzle size. This is particularly important where the hose has been run from a separate hose wagon not under the view of the operator.* — *Ed.*)

TOO often the nozzleman cannot do an effective job, because he has spent his energy pulling and hauling the hose. Where manpower availability permits, a fresh man should be reserved for the nozzle. He will have what it takes to move in on the fire and the result will be more efficient extinguishment, with less punishment to all hands. When conditions are tough, do not keep one man on the nozzle too long. If spelled off in time, he will be able to return more quickly and take his turn once again. None of us like the idea of giving up the nozzle to another man, yet it is foolhardy to persist in operating the nozzle to the point of exhaustion.

On occasion we have witnessed a company moving a line in, with the nozzle open. This is a slow, dangerous and strength-sapping operation. The reaction on the nozzle resists every inch of the advance. The better advance is to shut the nozzle off first, then move the line to the new position. Once visible fire is extinguished, the line should be shut off and moved in to a new vantage point. Another action that should be guarded against is crowding the nozzle. The officer should avoid having too many men near the nozzle or entrance door. This hinders ventilation and reduces the amount of oxygen available to the nozzleman. Likewise, overweighted fire floor hallways, landings, and fire escapes intensify the danger of collapse.

A nozzle should never be left unattended, after a fire has been knocked down, nor should it be left open if the water supply momentarily fails. This is a very dangerous practice, as the water or pressure may be restored to the line.

The Use of 1½-in Hose

The use of 1½-in. hose depends upon the sound judgment of the officer in the particular circumstances involved. Can it supply enough water for this fire? The officer must be sure. Its speed in getting water on the fire should not be underestimated. Its mobility and maneuverability are a boon to undermanned units. But let's not fail to recognize its limitations. Failure to back it up with 2½-in. hose may permit the fire to get out of control and cause greater alarms.

The second due engine company could automatically stretch the 2½-in. line from the first due company's rig and have it in readiness to speedily back up the 1½-in. line where the body of fire warrants a heavier stream for extinguishment. One of the common mistakes in the use of 1½-in. hose is to give too little pressure at the pumper. For efficient operation of 1½-in. hose with ¾-in. nozzle you should have 50 to 60 lbs. on the nozzle. This requires pressures upwards of 150 lbs. depending on the length of the stretch and the height of the fire. (*If fog nozzles are to be used 100 lbs. nozzle*

Make your "first-due" truck a "Wetter Water Wagon." Attack the fire immediately with a booster or 1½" line—charged with "wetter water." Records show you can put out most of your fires—or maintain a foothold while you lay in your heavy lines.

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pressure will be desirable and pump pressures of 200 lbs. may be in order. — Ed.)

Keeping Lines Free

Situations have arisen when it was impossible to advance a charged line because some portion of it became wedged. Thus engine companies should avoid use of a narrow stairwell. The collapsed hose may readily glide up such a stairwell, but once the line is charged, it remains a prisoner in a confined space. A similar condition may occur when a door closes over an uncharged line. But once water is started the line becomes jammed between the bottom of the door and the door sill. Enginemen should be on the alert for the aforementioned narrow stairwells which are frequently encountered in apartment houses. As for the door sill condition, wooden wedges, carried and used by alert units and having many uses, would hold the door open.

At greater alarms, there is a tendency to dump all the hose from the apparatus, when making the stretch, to "have enough." This results in excess hose in the street, increasing confusion, entanglement of lines blocking building entrance and demanding more than the required pumper pressure, which in turn increases possibility of burst hose.

Relative to standpipe operations, there are several common errors that the uninitiated and unthinking fire fighter will fall prey to. Quite often a standpiped loft building (*a multiple story building housing various manufacturing and mercantile tentants. — Ed.*) is encountered having several stairways, but only one stairway has a riser with hose outlets. At night when the truck company forces one of the street entrances, the engine officer should make sure that the stair enclosure contains the standpipe riser before having his company hike upstairs with rolled up lengths. In standpipe work, you should never assume that two rolled up lengths are sufficient. Three to five lengths are commonly carried, depending on whether it is a one or two piece unit. When operating from the standpipe in a building with a wide frontage, three lengths should be carried to the point of operations.

In supplying a standpipe system, there is a growing tendency to put but one line into the siamese. Once it is necessary to charge this line, another supply line should be connected into the siamese. If fire is on the top or upper floors, it is important that sufficient pressure be supplied as pressure due to head is poor at this point. The standard 85 pounds plus 5 pounds per floor is safe practice in determining necessary pressure.

Another acceptable standard is that when several lines are taken off the standpipe outlets, all siamese connections should be fed. The fire department recommended use of standpipe outlets for fires above the fourth floor is an accepted truism. However, don't assume that the standpipe is not to be used below the fifth floor. Fire on the lower floors of a standpipe building of wide frontage warrants standpipe operation. Second and third due companies arriving at high fires in standpipe buildings where it is probable that they may go to work, should report to the officer in charge of the fire on the upper floors with their rolled up lengths. Then, if ordered to go to work, they will not lose valuable time going down to the street for their hose.

Effective deckpipe operation demands mobility at fires involving buildings of wide frontage. It is not good practice to stretch just enough hose to reach the deckpipe. Sufficient extra hose should be stretched to the deck pipe to permit movement of the deck pipe apparatus across the front of the building for proper coverage. Also, when deckpipe apparatus is being moved the line should be lifted to take the weight off the couplings, and moved to the new position.

Once a charged line is supplying a siamese, whether standpipe, sprinkler, deckpipe or water tower, little time should be lost in laying a second supply line. This second line is necessary for increased volume and pressure, but most important of all for surety of water.

Convention Notice

THE Northwest-Seattle Convention of the International Association of Fire Fighters will be held in Seattle, Washington, August 11–16, 1952. Information may be obtained from Marshall Bland, Program Chairman, 4106 38th Avenue S.W., Seattle 6, Washington.

NFPA Member Departments

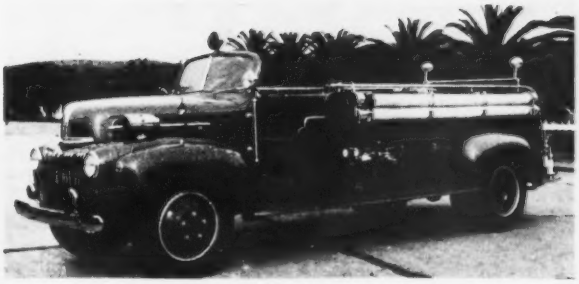
Seaford Volunteer Fire Department, Inc., Seaford, Delaware

HEADED by Chief Charles H. Marvel, Jr., this department celebrated the 50th anniversary of its organization in November, 1951. There are 64 volunteer members and a Ladies' Auxiliary of 188 members. The department is an active NFPA Member Department and 54 of its members subscribe to FIREMEN.

Shown above is the new fire house at Seaford. This was built at a cost of $185,000, of which the Department paid $50,000 and, in addition, furnished the building from its funds. Funds are supplied by the town and through subscription in the activities of the members.

Some of the apparatus used by the Department is shown above. At the left is a Seagrave combination 600 gpm pumper purchased in 1921. Next is a 400 gpm Seagrave suburbanite pumper, purchased in 1926 and reconditioned and fitted with a 100-gallon water tank. In the center is a 1950 Cadillac ambulance completely equipped and manned by the First Aid Squad. The International 750 gpm pumper and tank truck and the Seagrave pumper shown at right were also added in recent years. A ladder truck with a 750 gpm pump and a 750-gallon water tank also belongs to the department.

Other officers in the department in addition to Chief Marvel are: Assistant Chiefs James B. Wheatley and Norman M. West and Chief Engineer W. Robert Favinger. The Department is a member of the Delaware Volunteer Firemen's Association and was host to that organization's convention last year.



Bomberos de Vina del Mar

THE Cuerpo de Bomberos (Fire Department) of the Chilean city of Vina del Mar is a volunteer fire department in the best tradition. It is organized under its own by-laws and each of its four companies has, in turn, its own separate organization. All are two-piece companies, three having two pumpers each and one having two ladder trucks.

Vina del Mar is a city of 120,000 population on the West Coast near Valparaiso. Fire Company No. 4 with a membership of 30 active fire fighters has a two-story concrete station and two pumper units. Its Chief is Captain Alfonso Finlay Linacre and Assistant Chief is Juan Vasquez Daza. Business affairs are under a Director, Alberto Fuentes L., and a Secretary, Pedro J. Diaz Lemenon.

Shown above is one of the pumpers of Fire Company No. 4, a Darley 500 gpm pump on a Ford chassis.

Santa Ana Fire Department, California

Chief John Garthe of the Santa Ana Fire Department forwarded to FIREMEN this picture of Santa Ana's attractive Station 4 with an attached drill tower.

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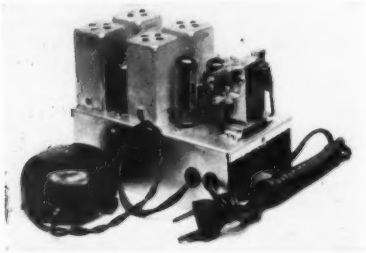
The "Efas" — Something Different in Fire Alarms

By Assistant Chief Vard Nelson,
Volunteer Fire Department, Junction City, Oregon



Schultz Photo Service

THE "Efas" is an adaptation of wired wireless wherein the power line becomes the carrying medium for the radio signal instead of the air. This method of operation doesn't require a license as long as the radiations are kept within a small distance of the power line.

The secret of "Efas" is a circuit designed by Mr. Ray which cancels out all motor interference, line leaks, etc., that might inadvertently trip the relay. Only the "Efas" transmitter frequency gets through to the receiver. The receiver is about the size of a small table radio and is easily portable. Our firemen take them along when they are visiting and just plug them into any outlet in the host's house. A receiver can be taken to a basketball game or any gathering that attracts a number of firemen and they are all set to get the alarm.

As radio waves travel at a velocity of 186,000 miles per second as compared with the relatively slow speed of sound (approximately 1080 feet per second), many of our boys far out are getting a 4- or 5-second jump on the siren. Several times I have been outside of my house before I heard the siren.

Junction City covers an area of about 2 square miles. We have an assistant chief living almost 2 miles from the fire station and his "Efas" has never failed him.

All of our firemen are supplied electricity from a single sub-station and we know the "Efas" works beautifully here. What can be done in larger communities where they are fed off of several substations is a question that the manufacturer must answer. Our installation was sold to us at cost. What the manufacturer's price will be and further technical data should be obtained from De's Radio Service, Junction City, Oregon.

THE "Efas," a short name for Electronic Fire Alarm System, has been the answer to the Junction City, Oregon, fire alarm problem.

Prior to "Efas" our department depended upon a 5-horsepower electric siren to summon the volunteers to the station. If the wind was from the south we lost 6 or 8 men because they couldn't hear the signal. If we had a north wind we lost a number of boys in the north section of town. Even firemen living close-in missed an alarm if their radio was on or if the kids were "whooping it up."

The "Efas" is an electronic device invented by Captain De Ray of our department who is at the head of our electronic section and who is a radio engineer and service man. It consists of a low frequency radio transmitter which is coupled to the 2200 volt power line through capacitances. Our local power company made this connection for us.

An "Efas" receiver is placed in each fireman's home and is left permanently connected to an electrical outlet. It consumes about 35 watts. This receiver is fix-tuned to the transmitter frequency.

When a fire alarm is telephoned to our operator she turns on the siren and the same operation turns on the "Efas" transmitter which starts sending pulses of one second intervals over the power line and into the receivers. The receiver in turn converts the radio signal into a current strong enough to pull in a relay which rings a bell.

It is almost fantastic the way the boys pour into the station house now, no matter what the atmospheric conditions are.

"Lost for Want of" — A Hydrant Wrench!

AT 4:45 P.M. on October 1, 1951 the volunteer fire department of Frankton, Indiana, received an alarm for a fire starting in the boiler room of the Russell Wann & Son's large frame cannery. It was the first run for the department's new fire truck. On arrival the firemen discovered that they did not have a wrench with which to open the hydrant and had to return to the station for one. Upon return, the fire was out of control despite additional assistance of two pumpers from Elwood, six miles distant. Part of the warehouse was saved but the loss exceeded $95,000.

Before other fire departments ridicule the misfortune at Frankton, let them make certain that they can never be embarrassed by an inadequate supply of hydrant wrenches on their own apparatus. Hydrant wrenches have been known to snap when used in haste on a stubborn hydrant and a spare comes in handy.

It is not uncommon for a pumper to lay out a hydrant line on the way to a working fire and unless the hydrant is already in use the men making the hydrant will require a hydrant wrench. After the line is broken and the nozzle is attached the pumper may be ordered to lay from the fire to another hydrant requiring a second hydrant wrench.

There are several instances in the NFPA fire record files where a single pumper has laid lines from as many as four different hydrants in the course of a fire. In one instance flying brands from a large fire were starting numerous roof fires over a large area. A fire truck laid a number of short lines from hydrants in the path of the wind to protect buildings in advance of the fire until more help could arrive.

It is probable that an experienced apparatus operator would rather be found at a fire without his trousers than without a hydrant wrench. It has been a common secret that many an old-time pump operator had a spare hydrant wrench hidden under the seat of the pumper. In discussing this subject, one fire chief reported that his first act when appointed as a chief officer was to place a hydrant wrench in his chief's car and that it came in handy on several occasions.

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Made of selected, tough, top-grain leather specially tanned and treated for hardness and heat resistance, the "NEW YORKER" is the safest, strongest, most durable helmet ever made. Service records up to 30 years are not unusual — making it the least expensive helmet a fireman can buy.

We also make leather helmets in drop brim and other types, and in other weights.
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The improved Powhatan "Sensible-Lug Couplings" are precision tooled and manufactured of only the best high-grade materials. They set a standard that is "tops" in this specialized field of fire-fighting equipment. The curved surfaces of this modern coupling enable the hose to glide easily over all obstructions, thus preventing snagging, an important safety and economical feature appreciated by those who know.

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Snake River Mutual Provides Apparatus

PROVISION of fire fighting apparatus to rural communities has proven to be a worthwhile investment for the Snake River Mutual Fire Insurance Company of Idaho Falls, Idaho. Ten years ago the Company began the practice of purchasing apparatus to supply fire protection to outlying communities. Since that time twelve modern fire trucks have been purchased and delivered to communities in Idaho that previously had little or no fire fighting equipment for protection. Total cost of the investment has approached $200,000 but the results have been proven worthwhile. In addition to the saving of an estimated several million dollars worth of property and a number of lives there has been a noticeable increase in the amount of goodwill for the Company throughout the state. The number of policyholders have increased from 4,000 to 20,000 during the past six years.

Shown above is Mr. Ellsworth, Dodge representative, and Mr. Howard M. Cullimore, former Insurance Commissioner of Idaho, now secretary-manager of the Snake River Mutual, and one of the leaders of the campaign for better fire protection for rural districts in Idaho.

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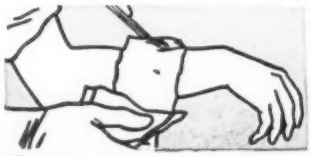
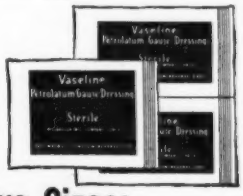
To Open foil-envelope, cut with scissors along dotted line on back of envelope...or in an emergency, tear off seal carefully below this line . . . end of dressing is pulled out of envelope with one hand (use forceps, if handy), while envelope is held with other hand.



Cover damaged surface and area two inches beyond with two layers or more of petrolatum gauze dressing . . . then apply sterile dry bandage to keep clean and hold gently in place—using first-aid principles . . . have injury examined by a physician.



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Unit envelope: one 3" x 36" dressing.
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Six envelopes to the illustrated carton.

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"Fire Service Practices" — Revised Edition

THE School of Trade and Industrial Education, Oklahoma Institute of Technology, Oklahoma A&M College has published a revised Civil Defense edition of the manual "Fire Service Practices for Volunteer Fire Departments." This was compiled in cooperation with the State Board for Vocational Education, the Division of Trade and Industrial Education, the Oklahoma State Firemen's Association, the Fire Service Training Association and the Western Actuarial Bureau Fire Prevention Department.

The book has been adopted for use in fire service training in 21 states and in the Province of Ontario. It contains 92 pages, is well illustrated and is bound in heavy paper cover. Copies may be obtained for $1.50 each from the Oklahoma A & M College Book Store, Stillwater, Oklahoma.

The latest revised list of other publications of the College appears below. The change in prices became effective September 1, 1951.

Firemen's Training Manuals

Fire Service Practices for Volunteers (Civil Defense Edition) 2nd, Nov. 1951	$1.50
A Basic Course in Unit Fire Service Training, 1st, 1950	1.25
Unit No. I Forcible Entry and Minor Extinguishment Practices, 2nd, 1948	.50
Unit No. II Ladder Practices, 3rd, 1948	.75
Unit No. III Hose Practices, 2nd, 1948	.75
Unit No. IV Salvage and Overhaul Practices, 2nd, 1942	.50
Unit No. V Fire Stream Practices, 2nd, 1942	1.00
Unit No. VI Fire Apparatus Practices, 2nd, 1951	1.25
Unit No. VII Ventilation Practices, 1st, 1944	.50
Unit No. VIII Rescue Practices, 1st, 1943	1.00
Unit No. IX First Aid Practices, 1st, 1947	1.25
Unit No. X Inspection Practices, 1st, 1945	.50
Company Officer Training Unit 1, 1st, 1945	.50

Informational Training Texts

Introduction to Fire Service Training, 2nd, 1951	$ .35
Mathematics Applied to the Fire Service, 2nd, 1945	3.00
Principles of Science Applied to the Fire Service, 2nd, 1942	3.00
Principles of Electricity Applied to the Fire Service, 2nd, 1951	3.00

MORE TESTIMONY ON
INDIAN
Fire Pumps
FROM MEN WHO KNOW!

We believe the comment of these men, all of whom are prominent in the fire prevention field, tells more about INDIAN FIRE PUMPS than anything we might say.

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"AMAZED"
"Traveling throughout New York State and visiting many firehouses, I have been amazed at the number of INDIAN FIRE PUMPS in service. Fire Chiefs do not normally add useless equipment to their rigs."
Chief Henry F. Drake, Sec.-Treas. New York State Association of Fire Chiefs

"EMINENTLY SATISFACTORY"
"For years our department has used INDIAN FIRE PUMPS and they have proved eminently satisfactory."
Lester H. Clark, Fire Chief, Cloquet, Minn. Fire Dept.
President Minnesota Fire Chiefs Association

"INDISPENSABLE"
"We have several INDIAN FIRE PUMPS in our department. They are indispensable for prairie and light brush fires for which we use them."
Rex. F. Honnold, President Nebraska State Volunteer Firemens' Association, Shelton, Neb.

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L. N. Curtis & Sons 426 W. Third Street South Salt Lake City, Utah.
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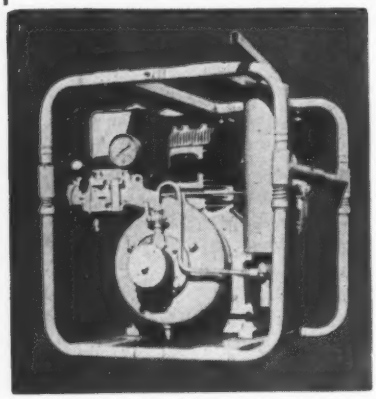
HAS YOUR FIRE TRUCK A HALE TYPE FZZ?

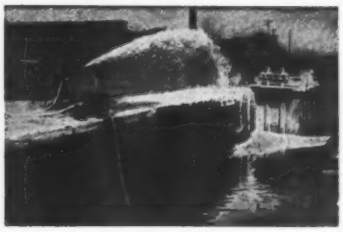
". . . All Fire Trucks should have one or more"

says Fire Chief from Missouri



Above — This frame-mounted FZZ (with carrying handles turned in) can be easily carried to source of water which truck cannot reach, for refilling booster tank or for fighting fire direct. Unit is also available mounted on two truck-type wheels or on rubber-cushioned steel channels. **Note:** Discharge adapter can be supplied for use with 2½-in. hose.

Chief R. M. Wilson of Monroe City, Missouri, suggests that all Fire Trucks should have a Hale type FZZ portable pumping unit . . . He writes: "I want to tell you how pleased I am with this FZZ pump. We received it May 27th. On May 29th I was compelled to use it during a bad rain storm as our large pumper was unable to reach water supply. We put the little pump at a pond, used 500 ft. 1½" hose layout, and saved this farmer almost $2,000.00. **The FZZ gave a nice fire stream. The motor started on the first pull in a downpour of rain. Not one time did it stop. We used it for almost 2 hrs. Had we not had this portable pump, there was no way we could put out this fire. I think all fire trucks for Town or Country should have one or more."**



Above — FZZ Pumping Foam. (Foam proportioner built in if specified.)

With a ready-for-use Hale FZZ you can fight fires not only with solid stream and/or fog, but also with foam — a valuable weapon against gasoline truck fires.

The easily portable FZZ can be mounted in any apparatus, making it possible to fight fires while apparatus is in motion, using booster tank for source of water. CAPACITY 60 G.P.M. at 90 lbs. pressure; 150 G.P.M. at 30 lbs. pressure; ample reserve capacity. *Ask for demonstration; no obligation.*

Write today for FZZ FOLDER to:

HALE FIRE PUMP COMPANY

CONSHOHOCKEN, PA.

Fire Pumps in All Standard Capacities

Operating Fire Department Pumpers

Providing Proper Pressure

ADJUSTMENT of pump controls so that the proper pressure will be produced for any particular hose layout is one of the most important responsibilities of the pump operator. Unlike most stationary fire pumps delivering a fixed output against a predetermined pressure or head, the fire department motor pump is called upon to meet a variety of hose requirements from booster streams of 10 to 15 gpm to master streams perhaps throwing 1000 gpm.

Suction sources also vary from drafts at various suction lifts from 3 to 20 or more feet and flows from hydrants providing varying supplies and pressures. Pump pressures may range from 100 lbs. or less to 250 lbs. from some 2½-in. lines and to pressures of almost 1000 lbs. per square inch for some high-pressure pumps supplying small streams. The pump operator is master of all of these situations and upon him both the fire officers and the hosemen must depend for good streams. Good performance depends upon efficient utilization of available water supplies and pumping facilities.

WITH the pump in proper pressure or volume position for the hose layout, needed pump pressures should be obtained by slowly increasing the motor speed with the throttle.

With a multi-stage or pressure-volume pump, if in doubt as to whether pressure or volume operation is desirable (some small pumps have but a single stage), a good rule of thumb is to operate in pressure position for volumes not exceeding the rated output of the pump at 200 lbs. With a Class A pump this is 70 percent of the output at 150 lbs. With a Class B pump it is 50 percent of the discharge at 120 lbs.

Another simple guide is to operate in the pump position that provides the desired output at the lowest motor speed as indicated by the tachometer.

Unfortunately, some of the instruction manuals furnished by certain apparatus manufacturers have not accurately described the proper operation for the latest types of pumps. Accordingly some departments have had difficulty in getting the maximum performance from their machines. For example, the instruction book may say that volume or parallel position should be employed under certain circumstances when actual experience will show that much better performance can be obtained at lower engine and pump speeds in pressure operation. Use of a pitot gage to measure nozzle flows with given hose layouts with the pump first in volume and then in pressure often will show quite clearly a superior performance in gpm when the transfer valve is in the proper position for the layout employed. These things can be determined experimentally when holding pumper drill.

A 500 gpm pump should supply at least one 2½-in. line in pressure position. All of the smaller lines such as booster or 1½-in. hose are generally operated in pressure or series. Larger pumpers of recent design can supply two 2½-in. lines in pressure. Many pumps now have a third stage to provide higher pressures for small streams. Manufacturers' instructions should be followed for pumps of special design.

The charging of hose lines slowly and building up of desired pressures gradually will enable the nozzlemen to get set before the maximum working pressure reaches the nozzle. A good practice when operating from hydrants having flow pressures of less than 100 lbs. is to first charge the line by allowing the hydrant pressure to pass through the pump and hose when water is called for. This will get the air out of the hose and provide a stream of water at the pipe. The operator then advances the throttle as necessary to develop the full nozzle pressure indicated or requested. High-pressure hydrants may provide more pressure than is desired and the gates and gages of the pump should be used to regulate the flow except where independent gates are attached directly to outlets of high-pressure hydrants.

Pump pressures should be reasonably exact. Too little pressure results in poor fire-fighting streams and pressures that are too high are more difficult to control and are usually ragged. Excessive pressure may result in burst hose or failure of a critical part of the pumping equipment.

Training Staff Reorganized at Iowa State College

ASSISTANT Director G. Ross Henninger, of the Engineering Extension Service, Iowa State College, has announced the reorganization of the firemanship training program in Iowa.

Heading the training program is Mark H. Brosier (upper left), who has been in fire service work for 29 years and who formerly was assistant fire chief in charge of the Bureau of Fire Prevention at Anderson, Indiana. Mr. Brosier has been on the staff of the Engineering Extension Service of Iowa State College for the past four years.

Keith Royer (upper right), has been added to the firemanship training staff as Chief Instructor. Mr. Royer, during recent years, played a major role in organizing the statewide firemanship training program for the University of Kansas.

Mr. Floyd W. Nelson (lower left), former assistant chief of the Atlantic, Iowa, Fire Department, joined the Iowa State College Staff as a field instructor in July, 1951.

Mr. Charles F. Lucke (lower right), has been a field instructor since July 1950. Prior to that time he was chief of the Bellevue, Iowa, Fire Protection District.

Plans are being made for the 28th Annual Iowa Fire School to be held May 20–23, 1952, on the Iowa State College Campus.

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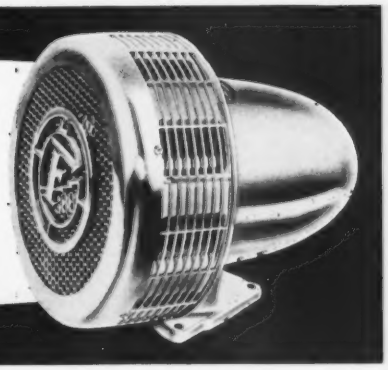

The one siren you can hear *above all others*

No traffic noises, no other warning signals can top the Federal Q Siren. The newest, the greatest siren ever developed. Look them all over — then compare — you'll buy the Federal for greater penetration, maximum sound output and longer coasting.

In the emergency vehicle field you need the finest in sound protection. Specify the Federal Q Siren. Write for Bulletin 301 today!

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PROTECTIVE CLOTHING

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Modern fire fighting calls for *specialized* protective clothing that safeguards the fireman's life on every run . . . clothing that enables him to use his equipment to the fullest advantage.

Every Midwestern product combines the thoughts and suggestions of practical Fire Chiefs and firemen from every section of the country . . . and every purchaser profits from years of Midwestern research and experience. That is why the famous Mackinaw Coat and other Midwestern clothing have embodied in their design every feature necessary for the protection and comfort of firemen.

In our vast selection of rubber materials you will find a type of fabric suitable for your climate and needs. The softness and flexibility of the high-grade materials used are your assurance of long time service and comfort.

Due to government requirements for Midwestern Protective Clothing, it will assist in prompt delivery if you place your order early. For complete information, have your Midwestern dealer show you our full line. A letter to the factory will also bring you material samples for your inspection.

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Manufacturers of the Famous **MACKINAW Coats**

HOWE Fire Truck Equipment Meeting Every Service Since 1872
Centrifugal, Rotary, and Piston Pumps supplied
HOWE FIRE APPARATUS COMPANY, 1406 West 22nd Street, Anderson, Indiana

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HOSE BRASS GOODS V8 LINE THE WOOSTER BRASS CO. WOOSTER, OHIO

dependable TRUMPET quality. This insignia on any fire fighting equipment is an assurance of precision construction and thorough engineering for a lifetime of service.

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West Coast Dwelling Inspections

JAY W. STEVENS, Secretary of the International Association of Fire Chiefs, reports that in the three Pacific Coast States (Washington, Oregon, and California), an estimated 1,500,000 to 2,000,000 homes have been inspected since the fire prevention campaign of the IAFC started.

Chief William Fitzgerald of the Seattle Fire Department reported that an excellent reception to the campaign was received during Fire Prevention Week. At each household a uniformed fireman introduced himself as a member of the neighborhood fire station and asked that the circular be read in family conference. Seattle firemen spent a total of 10,436 man-hours delivering fire prevention circulars to 145,288 dwelling occupancies.

State Fire Marshal Miles E. Woodworth of Portland, Oregon, reported that editors of newspapers and managers of radio stations in that city were invited to a luncheon in the Central Fire Station, where the full scope of the inspection program was explained. Radio spot announcements were furnished to the station managers who allowed the Fire Department additional time for 15-minute programs to publicize the inspection dates.

The newspapers also gave considerable support to the campaign so that when the inspections started the people of the city were prepared. Inspections were conducted between the hours of 9:00 and 12:00 A.M. and 1:30 and 4:00 P.M. All companies remained in service using two-way radios, with the apparatus moving along with the men conducting the inspections.

One measure of the effectiveness of the campaign was the fact that dwelling fires in Portland were reduced 15% during the month of June (when 72,000 dwellings were inspected) as compared with the average of previous years. During July a 28.5% reduction was recorded.

Reminder!
NFPA Annual Meeting
Hotel Statler, New York, N. Y.
June 9-13, 1952

Membership Report

DURING 1951 a total of 270 fire departments enrolled as new NFPA Fire Department Members. This increased the membership to an all-time high of 1,655 fire departments, with 21,483 firemen receiving subscriptions to FIREMEN as part of their department's membership.

It is hoped that 1952 will show a continuing rise in the enrollment of new members. The distribution plan of FIREMEN is designed to deliver valuable information on fire protection, fire fighting, and firemen's training to the officers and men who can best put that information to use.

NFPA Welcomes:

British Columbia: Chemainus Volunteer Fire Department, Chemainus; Central Saanich Volunteer Fire Department, Saanich.

California: Monte Vista Fire District, Chief J. L. Lodi, Redwood City Fire Department, Redwood City; Chief Albert Henry, Tahoe City Volunteer Fire Department, Tahoe City.

Florida: Chief Walter Sachse, Winter Park Fire Department, Winter Park.

Illinois: Sycamore Fire Department, Sycamore.

Indiana: Chief Harry Hawn, Goodland Fire Department, Goodland; Midwest Fire & Safety Equipment Company, Incorporated, Indianapolis.

Louisiana: Chief C. R. Mequet, Jeanerette Volunteer Fire Department, Jeanerette.

Michigan: Chief Gordon Umphrey, Coloma Fire Department, Coloma.

Mississippi: Long Beach Volunteer Fire Department, Long Beach.

Nebraska: Auburn Hose Company, Auburn.

New Hampshire: Eagle Engine Company No 1, Fitzwilliam.

New Jersey: Mary Elmer Lake Volunteer Fire Company No. 1, Bridgeton.

New York: Richfield Springs Fire Department, Richfield Springs; Spring Brook Fire Company, Incorporated, Spring Brook; Ulster Hose Company No. 5, Incorporated, Ulster.

Pennsylvania: Chippewa Township Volunteer Fire Department, Beaver Falls.

Utah: Chief I. L. Borg, Logan City Fire Department, Logan.

Virginia: Parksley Volunteer Fire Department, Parksley.

Washington: Chief Satterley, Fircrest Fire Department, Fircrest; King County Protection District No. 4, Seattle.

✓ VICTIMS RESCUED
✓ FIRES OUT
✓ FIREMEN ALIVE and WELL

thanks to Chiefs who Specify

"Scott Air-Pak"

Fire Departments using *Scott Air-Pak* build enviable records for life and property conservation!

Scott *Air-Pak* Back-Pak (above) — ½ hour minimum duration at extreme exertion. Weight as worn 29½ lbs. B. of M. approval No. 1308.

Fire Departments throughout the nation safely rely on Scott *Air-Pak* to locate and save persons trapped by smoke. Property loss, too, is reduced as fire fighters, safely protected from dense smoke and fumes, locate the fire and fight it at its source.

Scott *Air-Pak* is the *safe, proven* way to fight fires!

OVER 2000 FIRE DEPARTMENTS NOW USING *Scott Air-Pak*

Over 2000 municipal and industrial fire departments use Scott *Air-Pak* — proof that it is safer, more economical and completely dependable. Special *Air-Pak* features include: cool, fresh AIR (not oxygen); demand-type regulator that can't be "outbreathed"; full-view mask permitting conversation.

FREE INFORMATION BOOKLET

Get the full story of Scott *Air-Pak* equipment—also arrangements for FREE DEMONSTRATION. Write for *Bulletin No. 510* and name of nearest distributor—today!

ESTABLISHED IN 1932
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FOR SAFETY - FOR SERVICE

Ask to see the new Scott Demand Inhalator

SAFETY EQUIPMENT DIVISION
SCOTT AVIATION CORP.
236 ERIE STREET, LANCASTER, N. Y.
CANADA: SAFETY SUPPLY CO. BRANCHES IN ALL PRINCIPAL CITIES
EXPORT: SOUTHERN OXYGEN CO., 157 Chambers St., New York 7, N.Y.

Fire Police in Horseheads, New York

THE problem of establishing control over traffic and non-fire-fighting personnel at the scene of a fire or other emergency can be troublesome to the officer in command and to the fire fighters. Valuable time can be lost because of obstructing vehicles and personal injury can result to the bystander who gets too close to the fire scene unless such control is established.

Chief M. D. Jansen of the Active Fire Company, Horseheads, New York (NFPA Member Department) has trained and authorized a group of volunteers as "fire police" for the purpose of obtaining the maximum control over traffic and other conditions in the vicinity of a fire or other emergency. By delegating this responsibility to a selected group Chief Jansen is assured that regular fire and police personnel can work without hinderance.

The order that gave this group the necessary authority is reproduced here. Cooperation of leading civil authorities in any town is, of course, necessary to make such a selected group of "fire police" effective.

Horseheads Fire Police
Horseheads, New York

You are authorized to serve at fires and calls of Horseheads Emergency Volunteers, Inc., in the Village of Horseheads, as Special Policemen. This appointment is by the Village Board to serve at their pleasure, under Fire Department and other officers, and the Chief of Police. You are also subject to call by the Mayor for service.

Following General Orders will apply:

1. Direct apparatus to fires and emergencies.
2. Establish fire lines. Take over from policeman on duty so he may continue regular duty.
3. Remove vehicles and obstructions that might interfere with apparatus.
4. Keep unauthorized persons from entering fire lines and buildings. On Horseheads Emergency Volunteer calls the vicinity shall be cleared of *all* people. Unneeded members of the Association shall report back to station to stand by.
5. Inform superiors when more police, ambulances, etc., are needed.
6. Assist firemen if necessary.
7. Direct traffic to other streets and roads. In traffic work the following should be considered for position:
   (1) Visibility to traffic. (2) Visibility of traffic. (3) Personal safety. (4) Nonobstruction of traffic. (5) Ability to effect control.
8. Guard property taken from buildings.

Following laws should be checked for violations:

1. Speeding, public and firemen.
2. Following apparatus at less than 500 feet.
3. Failing to give right of way to emergency vehicles.
4. Driving over fire hose.
5. Failing to heed fire lines.
6. Failure to obey signals of an officer engaged in the direction of traffic.

It will be necessary for you to sign the Oath of Office at the office of the Chief of Police, promptly.

M. D. Jansen
Horseheads Fire Department.

THE "BLITZ BUGGY" FIRE FIGHTER
4-wheel Drive Willys Model
Fights All Classes of Fire - - - *Anywhere!*

Pumps fog, foam or solid stream while moving 5–20 MPH.

Carries 200 gallons of water and pumps from draft or hydrant at 150 gpm.

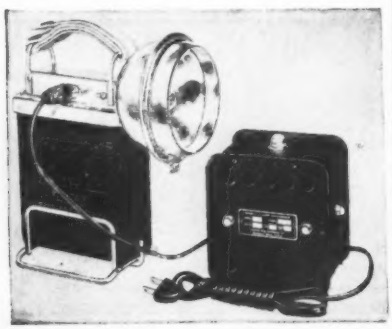
Built for rough going in woods, fields, ditches, steep grades - in any weather.

Approved for rural fire fighting by N. Y. State fire underwriters.

Write for details and specifications

HI-PRESSURE FOG EQUIPMENT CO. OLD FORGE, N. Y.

DO YOU NEED LIGHT?
STEADY BRIGHT LIGHT?
DEPENDABLE LIGHT?



WHEAT *FIREMAN'S* SPOTLIGHT

WHEAT LIGHTS have:

STEADY POWER — because of special battery construction.

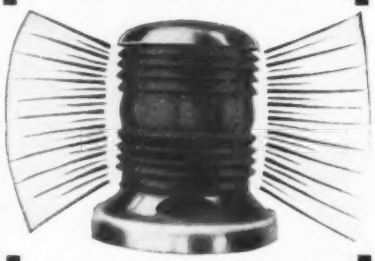
DEPENDABLE LIGHT — because of longer burning bulbs.

PROVEN SERVICE — used by Fire Fighters for 25 years.

For details: consult your dealer or write

KOEHLER MFG. COMPANY
MARLBORO, MASS., U. S. A.

CARPENTER LIGHTS
360 DEGREES
RED FLASHING LIGHT
LONG-RANGE VISIBILITY



For mounting on cab roofs of snow plows, trucks, buses, repair cars and emergency vehicles of all types. Available with or without built-in flasher and in 3½ in. or 4½ in. lens. Also available with Blue, Amber, Green or White lens, or combination 240 degree Red (for rear) and 120 degree Amber or Blue (for front) or other combinations. Visible from any angle.

Write for new Emergency Lighting Folder

CARPENTER MFG. CO.
168 Master-Light Bldg.
BOSTON—45—SOMERVILLE
MASSACHUSETTS

Most trouble has a remedy—can be solved before the cost goes too high. Not so with fire-fighting equipment. When it goes, it's *gone* . . . and frequently the pay-off is tragedy.

Fire hose is like that. The best remedy, the only sure remedy, is replacement *in advance of failure.*

Following this procedure, and, at the same time keeping costs within reason, demands top-grade hose that gives top performance over a dependable long service life.

Such a hose is that made by Boston Woven Hose & Rubber Company. Designed and constructed specifically for rugged fire-fighting conditions, it's known as the hose that's "always there when you need it."

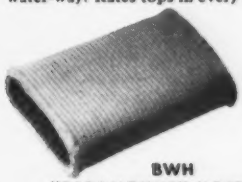
See the "General" trade-mark in your classified phone book . . . and check with our experts *today.*

GENERAL
"INNER FLEX" HOSE
Double Jacket Construction

General INNER FLEX is the only fire hose with the genuine, smooth-folding inner jacket, especially designed to provide complete pliability. The specially woven folded edges prevent squeezing and pinching and its smooth rubber lining affords longer lasting life. INNER FLEX—the PATENTED fire hose.

BWH
"BOSTON FIRE JACKET" HOSE
Double Jacket

Heavier, stronger fibers, perfect adhesion, smooth, friction-resistant water-way. Rates tops in every test!

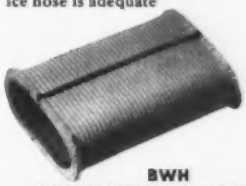


BWH
"PARAMOUNT" HOSE
Double Jacket

Designed for easy handling and long service on tough jobs. Ages well, withstands high pressures.

BWH
"MILO" HOSE
Single Jacket

For long, trouble-free performance in communities where a light service hose is adequate



BWH
"UNDERWRITERS" HOSE
Single or Double Jacket

Made in strict accordance with the National Board of Fire Underwriters' specifications. Labeled or unlabeled.

BWH
DEPENDABLE RUGGEDNESS

Distributors of Famous

BOSTON WOVEN HOSE & RUBBER CO.

Municipal Fire Hose

THE GENERAL DETROIT CORP.

DETROIT 7, MICHIGAN

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Subsidiary:

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LOS ANGELES • SAN FRANCISCO • SEATTLE

What's New in Fire Equipment?

Catalog on Emergency Power Plants

Universal Motor Company, 467 Universal Drive, Oshkosh, Wisconsin, manufacturers of gasoline and diesel powered electric generating sets, has released a new catalog on emergency power plants. The publication contains specifications for Universal emergency-standby light plants of 700 to 36,000 watt capacities, in both gasoline and diesel models, air or water cooled units. Practical applications for emergency power plants are suggested. A copy of the catalog may be obtained by writing to the manufacturer at the above address.

●

Goodall Introduces Red Fire Hose

Designed exclusively for fire companies and fire departments, Goodall Rubber Co., 420 Whitehead Road, Trenton 4, New Jersey, announces a new RED cotton rubber-lined fire hose. Manufacturer claims the fire-red elastic "Rubberhide" cover impregnated on the outside, provides higher resistance to mildew and greater resistance to wear. Company invites you to write in for sample and prices.

●

Emergency Fuel Pumps

Shown above are members of the Fort Wayne, Indiana, Fire Department watching fueling operation of a plastic vane Blackmer truck pump, used to lift gasoline from underground tank supply. Manufacturer claims that these pumps may be used for fueling purposes in event of electric power failure which would incapacitate service station pumps. Civil defense officials of Fort Wayne have established "emergency stations" for spotting of fuel trucks on the perimeter of the city. Details of the operation may be obtained by writing for "CD Fueling Bulletin" to Blackmer Pump Company, Grand Rapids, Michigan.

Please mention FIREMEN when writing to advertisers

New Directional Antennas

The Ward Products Corporation, Division of the Gabriel Company, 1523 East 45th Street, Cleveland 3, Ohio, has announced two new directional antennas. Model SPP-161 is a 12-element Yagi type antenna with a gain of 11 decibels. It is polarized for commercial communications with provision for horizontal polarization. Model Spp-172 is of similar construction with a forward gain of 14.5 decibels. A free descriptive bulletin may be secured from radio distributors or from the manufacturer at the above address.

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"Correct Fire Protection" Bulletin Available

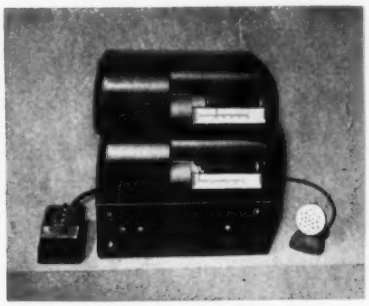
American-LaFrance-Foamite Corporation has published a 32-page booklet titled "Correct Fire Protection." The booklet describes the correct type of extinguisher to use on various fires and also illustrates and describes the sizes of units available with the different kinds of fire extinguishing agents. Single copies are available free of charge and may be obtained from the manufacturer at the above address.

●

New Coaster Siren

Federal Enterprises, Inc., Signal Division, Chicago, Illinois, has developed a coaster siren for emergency vehicles. Designated the "Q" class, the new siren is available in two models: the "Q-2" for outside mounting with streamlined, chrome-plated housing, and the "Q-1" for under-hood or behind radiator-grille mounting. Electric brake is optional at extra cost and 6 or 12 volt models are optional. A standard bracket for mounting on any flat surface is included.

●



Continuous Recorder for Municipal Signal Monitoring

A lightweight continuous recorder for use in fire alarm bureaus has been developed by Dictaphone Corporation, 420 Lexington Avenue, New York, New York. Known as the Dictaphone Dictacord Continuous Recorder, the new machine automatically monitors voice radio communications, police call boxes, fire and police emergency telephone calls and air-ground radio communications. Weighing only 45 pounds the machine is portable and provides an hour of recording on a seamless plastic belt.

Are you up-to-date on FIRE PROTECTION? Read the news of a good buy on the back cover of this magazine.

Safeguard OUR NATION'S INDUSTRY

Dependable fire protection for defense and civilian industries is vital, and the fire signaling system is the first line of defense against fire. Insist on GAMEWELL Fire Signaling Equipment — it has proven reliable, efficient, and durable.

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The GAMEWELL COMPANY
NEWTON UPPER FALLS 64, MASSACHUSETTS
IN CANADA: NORTHERN ELECTRIC COMPANY, LTD., BELLEVILLE, ONTARIO

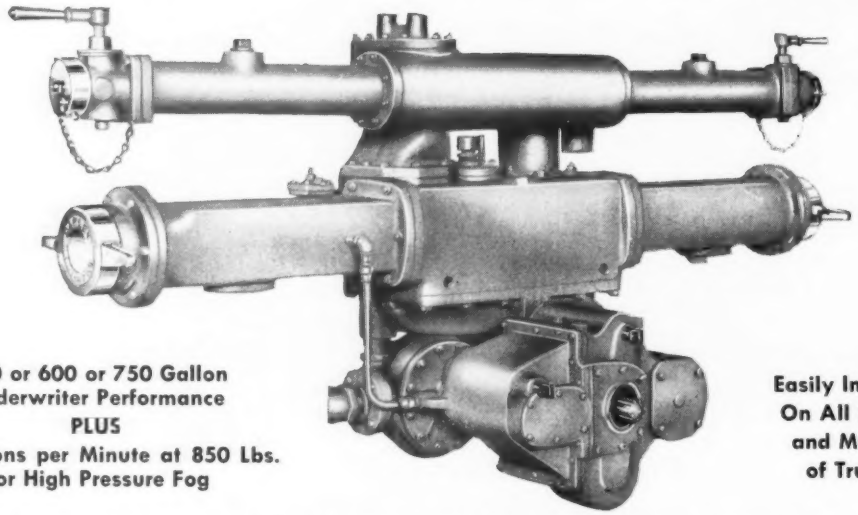
If You're In The Market for A New Fire Pump It Will Pay You To Test A Champion Before You Buy Any Pump

If your Department is planning the purchase of a Fire Pump for replacement of a worn out pump or for building a new fire truck, you will want to consider our offer to let you try before you buy. You can order any pump from us with the understanding that you have the privilege (without any obligation to purchase) of mounting the pump on your chassis and making any tests to prove Champion superior performance to yourselves.

If the Champion Centrifugal does not come through every test with flying colors you can ship it back and we'll pay the freight both ways. Your chassis will not be altered or damaged, in any way. We welcome competitive tests — test a Champion alongside any other fire pump of same capacity. That is, if you can find another pump manufacturer willing to ship a pump on trial.

Our offer applies to any Champion Fire Pump or Portable Pumper you may select.

The 3-Stage DUAL SERVICE CHAMPION



500 or 600 or 750 Gallon Underwriter Performance PLUS 60 Gallons per Minute at 850 Lbs. For High Pressure Fog

Easily Installed On All Makes and Models of Trucks

PERFORMANCE REPORT OF ACTUAL TEST—SH500 THREE-STAGE CHAMPION FIRE PUMP
POWERED BY 140-HORSEPOWER ENGINE
OUTPUT FROM THIRD STAGE

Volume	*Pressure*	*Engine Speed*
190 G.P.M.	500 Pounds	2240 R.P.M.
157 G.P.M.	600 Pounds	2350 R.P.M.
125 G.P.M.	700 Pounds	2530 R.P.M.
92 G.P.M.	800 Pounds	2700 R.P.M.
77 G.P.M.	850 Pounds	2780 R.P.M.
61 G.P.M.	900 Pounds	2870 R.P.M.

OUTPUT WITH FIRST AND SECOND STAGES IN PARALLEL AND OPERATING SIMULTANEOUSLY WITH THE THIRD STAGE

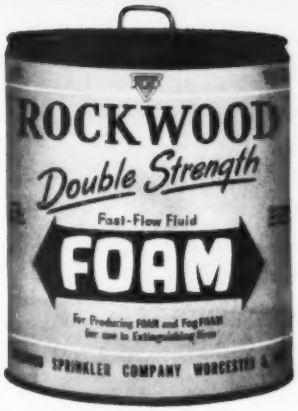
Volume	*Pressure*	*Engine Speed*
65 G.P.M. (from third stage)	500 Pounds	2370 R.P.M.
500 G.P.M. (from first and second stages)	120 Pounds	2370 R.P.M.

OUTPUT WITH FIRST AND SECOND STAGES IN SERIES AND OPERATING SIMULTANEOUSLY WITH THE THIRD STAGE

Volume	*Pressure*	*Engine Speed*
60 G.P.M. (from third stage)	600 Pounds	2260 R.P.M.
250 G.P.M. (from first and second stages)	220 Pounds	2260 R.P.M.

W. S. DARLEY & CO., Chicago 12

Tank farm at a large electric power generation station protected with Rockwood FOAM systems.



better FIRE PROTECTION begins with ROCKWOOD PRODUCTS

You'll be surprised at all the places in your refinery — plant or city where Rockwood fire fighting products can help you *cut fire losses.*

Year after year Rockwood engineers stride ahead giving fire fighters spectacular new developments to combat serious fires in highly volatile flammable liquids and materials. One of the most recent developments has been the new Rockwood *Double strength* FOAM liquid. This new type extinguishing agent is a *fast-flowing* FOAM that covers burning surfaces faster — completely seals off combustible vapors — flows freely at sub-zero temperatures (-15°F) and is easier for firemen to handle. It will cling to smooth, vertical or curved surfaces and has many advantages over ordinary FOAM liquids or powder foams.

New Rockwood proportioning equipment, FOAM and Fog-FOAM Nozzles enables fire fighters to apply Rockwood FOAM Liquid and wetting agent more efficiently to most fires.

Ask your fire equipment distributor, today for complete data and prices on Rockwood's growing family of modern fire fighting products.

New *Lightweight* type FFF Rockwood FogFOAM Nozzle. Discharges FogFOAM — solid FOAM stream or High Velocity WaterFOG. →

Rockwood FOAM Eductor can be attached between discharge of fire truck and hose line or between hydrant and hose line or between two lengths of hose.

Rockwood Lightweight "FF" Extension unit with SG-60 WaterFOG Nozzle attached. Discharges FogFOAM, solid FOAM stream, high velocity WaterFOG, solid stream or low velocity WaterFOG.

ROCKWOOD SPRINKLER CO.
88 HARLOW STREET, WORCESTER 5, MASS.
PORTABLE FIRE PROTECTION DIV.
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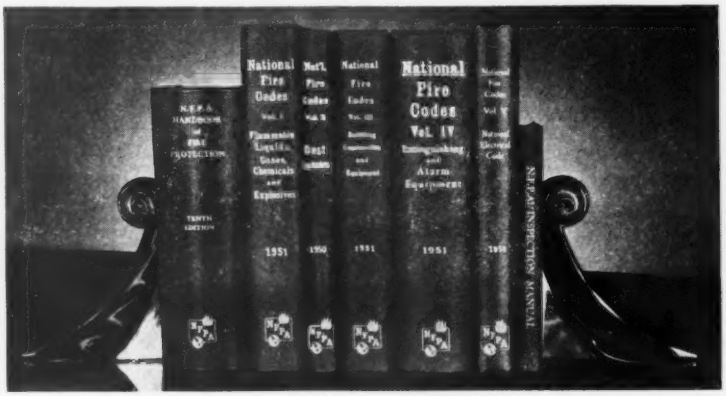
What YOU Can Do in '52 for Better Fire Protection!

- **You can now have a valuable library of "fingertip information" on fire protection.**
- **You can be sure of the latest and best information on fire protection through membership in the NFPA*.**
- **You can bring your reference library up to date with these new fire protection volumes.**



Here's a $39.50 Fire Protection Library for only $30

☐ **Handbook of Fire Protection, NFPA Tenth Edition, 1951 reprint, 1544 pages, flexible fabricoid** **$10.50**
The standard handbook of fire protection engineering including fundamental reference data.

NATIONAL FIRE CODES

☐ **Vol. I, Flammable Liquids, Gases and Explosives. (1951) 800 pages, cloth bound** **$4.00**
Contains 50 NFPA standards and tables of fire hazard properties of flammable liquids, gases, chemicals and explosives.

☐ **Vol. II, Prevention of Dust Explosions. (1950) 323 pages, cloth bound** **$3.00**
A collection of 17 standards for the prevention of dust explosions in flour and feed mills, grain elevators, plastic plants, starch factories, etc.

☐ **Vol. III, Building Construction and Equipment. (1951) 848 pages, cloth bound** **$4.00**
37 standards on building construction and equipment and tables of fire resistance ratings. Not a building code.

☐ **Vol. IV, Extinguishing and Alarm Equipment. (1951) 848 pages, cloth bound** **$4.00**
50 standards dealing with automatic sprinklers and water supply, fire extinguishers, carbon dioxide, foam, etc.

☐ **Vol. V, National Electrical Code. (1951) 548 pages, cloth bound** **$3.00**
The complete official text of the 1951 Code in large, easy-to-read type; also extracts from electrical provisions of other standards.

☐ **NFPA Inspection Manual.** A pocket manual covering inspection work done for fire prevention and protection. **366 pages, cloth bound (1950)** **$3.00**

☐ **Fire and the Air War.** Compilation of expert observations on fires of the war. **276 pages, 161 illustrations, cloth bound** **$4.00**

☐ **Hospital Fire Safety.** Record of hospital fires and suggestions for fire safety. Includes hospital fire standards. **(1951)** **$2.00**

☐ **Industrial Fire Brigades.** A training manual, 8¼ x 11, **188 pages, illustrated, paper bound** **$2.00**

☐ All the above 10 books (value $39.50) **$30.00**

☐ **Complete list of publications.**

☐ ***Write for Membership application blank and story of NFPA.**

Good-Bye to the Old Year — Good Buy for the New!

Use This Order Form Today!

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